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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,764	07/17/2003	Kari Niemela	60091.00204	9147

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EXAMINER

NGUYEN, LEE

ART UNIT PAPER NUMBER

2618

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,764

Applicant(s)

NIEMELA, KARI

Examiner

LEE NGUYEN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,5,7,10,13,15,18,21 and 23 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,8,9,11,12,16,17,19,20 and 24 is/are rejected.
- 7) ☒ Claim(s) 6,14 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 9, 11, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chizhik et al. (US 2004/0203395).

Regarding claims 1, 9, 17, Chizhik teaches a method/means for compensating Doppler shift in a telecommunication system, where at least one user terminal 235 is moving in relation to a network element 230 (fig. 2), the method comprising: inherently measuring a received uplink signal (calculating or receiving signals that have a similar Doppler shift, see abstract); estimating an amount of Doppler frequency compensation for at least one downlink signal related to a user terminal based upon a measured received uplink signal (Doppler compensatable, abstract); and compensating a Doppler shift for at least one downlink signal related to the user terminal by shifting a frequency of the signal according to the estimated amount of Doppler frequency compensation (processing one or more of the Doppler-compensatable to compensate for the Doppler shift, see abstract and [0040]).

Regarding claims 3, 11, 19, Chizhik also teaches that the estimation takes into account the previously made Doppler effect compensation (see already determined in [0085]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8, 12, 16, 20 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Chizhik et al. in view of Geier (US 5,525,998).

Regarding claims 4, 8, 12, 16, 20 and 24, Chizhik fails to teach that the estimation of Doppler frequency compensation utilizes information on system geometry, and that the estimated amount of the Doppler frequency compensation is filtered or weighted for increasing estimation accuracy. Geier teaches that Doppler frequency compensation utilizes information on system geometry, and that the estimated amount of the Doppler frequency compensation is filtered or weighted (col. 6, lines 24-35 and col. 7, lines 44-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geier with Chizhik in order to satisfy the requirement of Doppler measurement since all Doppler error variances will not be equal.

Allowable Subject Matter

Claims 6, 14, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 6, 14 and 22, the prior art of record fails to teach that the Doppler frequency compensation is performed for selected cells, if there are cells for user terminals located in a predetermined location.

Claims 2, 5, 7, 10, 13, 15, 18, 21 and 23 are allowed.

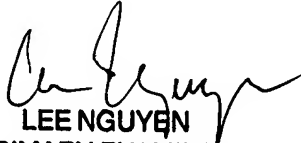
Regarding claims 2, 10 and 18, the prior art of record fails to teach informing a handover target cell of a required Doppler shift compensation while performing a handover; estimating an amount of Doppler frequency compensation for at least one user terminal related downlink signal of the handover target cell utilizing the information on the required Doppler shift compensation communicated from the source cell, and angles of velocity; and compensating a Doppler shift in the handover target cell for at least one downlink signal related to the user terminal by shifting a frequency of the signal according to the amount of Doppler frequency compensation estimated in the handover target cell.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LEE NGUYEN whose telephone number is 571-272-7854. The examiner can normally be reached on FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDERSON D. MATTHEW can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LEE NGUYEN
PRIMARY EXAMINER